

WHAT IS CLAIMED IS:

1. A method of configuring a blood circuit for medical application, the blood circuit being configured by forming a blood circuit system in which a blood circuit is divided into a plurality of unit sections and a plurality of selectable unit components are prepared for at least one unit section, selecting at least one unit component from each unit section based on the formed blood circuit system, and combining the selected unit components; the method comprising:
 - using a blood circuit system database in which data with respect to the unit sections and the unit components contained in the blood circuit system are stored,
 - inputting one of the unit sections on a basis of the blood circuit system database as an assigned unit section to the computer,
 - extracting the data of a plurality of the corresponding unit components from the blood circuit system database by the computer based on the input assigned unit section, and displaying the extracted data on a display,
 - inputting one component selected from the displayed unit components as a selected unit component to the computer,
 - after carrying out the above-mentioned procedures in the necessary unit section, by the use of the blood circuit system database, displaying an assembly drawing showing an entire configuration of the blood circuit obtained by combining the input selected unit components and at least one of a full length of the blood circuit or an amount of filled blood on a display, and then
 - inputting a command for changing the selection of the unit components or a command for determining the configuration of the blood circuit in the computer.
2. The method of configuring a blood circuit for medical application according to claim 1, further comprising, after the procedure of inputting the selected unit components to the computer,
 - selectively either returning to the procedure for inputting the assigned unit section or inputting a selection terminating command for terminating the input of the selected unit components and going to the following procedures, when the selection terminating command is input, if there is any unit

section with no selected unit component input, returning to the procedure of inputting the assigned unit section, and if the selected unit component has been input in all the unit sections, going to the following procedures, and

5 if the selection of the unit component is to be changed, returning to the procedures of inputting the assigned unit section.

3. The method of configuring a blood circuit for medical application according to claim 1, wherein if the command of determining the configuration of the blood circuit is input, based on the blood circuit system database, the
10 price of the blood circuit obtained by combining each selected unit component is displayed on the display.

4. The method of configuring a blood circuit for medical application according to claim 1, wherein an existing standard database in which a
15 plurality of existing standards are stored is further used, the existing standard being the combination of the unit components constituting an existing specific blood circuit, and when an assembly drawing, a full length of the blood circuit and an amount of filled blood are displayed, the existing standard analogous to the configuration of the displayed blood circuit is
20 retrieved and displayed as an analogous standard.

5. A method of configuring a blood circuit for medical application, the blood circuit being configured by forming a blood circuit system in which a blood circuit is divided into a plurality of unit sections and a plurality of
25 selectable unit components are prepared for at least one unit section, selecting at least one unit component from each unit section based on the formed blood circuit system, and combining the selected unit components; the method comprising:

30 using a blood circuit system database in which data with respect to the unit sections and the unit components contained in the blood circuit system are stored,

inputting set conditions including a price with respect to the blood circuit to be configured to the computer,

35 extracting a predetermined range of candidates of the combinations of the unit components from the blood circuit system database by the computer based on the degree of compliance with the input set conditions,

displaying a list of the candidates of the combinations of the extracted

unit components on a display,

inputting a selected assignment of one combination selected from the candidates of the displayed combinations to the computer, and

displaying an assembly drawing of an entire configuration of the blood
5 circuit obtained by combining the selected unit components and at least one of
a full length of the blood circuit or an amount of filled blood on the display in
accordance with the input of the selected assignment by the use of the blood
circuit system database.

10 6. The method of configuring a blood circuit for medical application
according to claim 5, wherein an existing standard database in which a
plurality of existing standards are stored is further used, the existing
standard being the combination of the unit components constituting an
existing specific blood circuit, and when the candidates of the combinations of
15 the unit components are extracted, an existing standard of the combination
having a high degree of the compliance with the set conditions are extracted
also from the existing standard database and added to the predetermined
range of the candidates of the unit components.

20 7. An apparatus for configuring a blood circuit for medical application,
the blood circuit being configured by forming a blood circuit system in which a
blood circuit is divided into a plurality of unit sections and a plurality of
selectable unit components are prepared for at least one unit section, selecting
at least one unit component from each unit section based on the formed blood
25 circuit system, and combining the selected unit components, comprising:
a blood circuit system database in which data with respect to the unit
sections and the unit components contained in the blood circuit system are
stored,

30 a unit section assignment portion for inputting one unit section on the
basis of the blood circuit system database as an assigned unit section,

a unit component display portion for extracting data of a plurality of
the unit components corresponding to the input assigned unit section and
displaying the extracted data on a display,

35 a unit component selection portion for inputting one unit component
selected from the displayed unit components, maintaining the data of the
selected unit components of all the unit sections, and supplying the
maintained data as data of the combination of the selected unit components,

and

an assembly drawing etc. display portion of displaying an assembly drawing showing an entire configuration of the blood circuit and at least one of a full length of the blood circuit or an amount of a filled blood on the display
5 by using the blood circuit system database based on the data of the combination of the selected unit components,

wherein the data of the selected unit components in the unit component selection portion can be changed by assigning the unit section in the unit section assignment portion.

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8. The apparatus for configuring a blood circuit component according to claim 7, further comprising:

an existing standard database in which a plurality of the existing standards are stored, the existing standard being the combination of the unit components constituting an existing specific blood circuit,
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an analogous standard retrieving portion of retrieving a blood circuit that is analogous to the combination of the selected unit components from the existing standard database on a basis of the data supplied from the unit component selection portion, and

20 an analogous standard selection portion having a function of selecting one from the retrieved existing standards by the analogous standard retrieving portion, and supplying, instead of in the unit component selection portion, the data of the combinations of the selected unit components on the basis of the selected existing standard to the assembly drawing etc. display
25 portion.

9. An apparatus for configuring a blood circuit for medical application, the blood circuit being configured by forming a blood circuit system in which a blood circuit is divided into a plurality of unit sections and a plurality of
30 selectable unit components are prepared for at least one unit section, selecting at least one unit component from each unit section based on the formed blood circuit system and combining the selected unit components; comprising:

a blood circuit system database in which data with respect to the unit sections and the unit components contained in the blood circuit system are
35 stored,

a set conditions input portion for inputting the set conditions including a price with respect to the blood circuit to be configured,

a retrieved combination candidate display portion for, by the use of the blood circuit system database, retrieving candidates of the combinations of the unit components based on the degree of the compliance with the input set conditions, extracting the predetermined range of the retrieved candidates of the combinations of the unit components, and displaying the extracted candidates of the combinations,

a selection assignment portion for selecting and supplying one of the candidates of the combinations of the extracted unit components to an assembly drawing etc. display portion as data of the combinations of the selected unit components, and

an assembly drawing etc. display portion for displaying an assembly drawing showing an entire configuration of the blood circuit and at least one of a full length of the blood circuit or an amount of filled blood on the display by the use of the blood circuit system database on the basis of the data of the combination of the selected unit components.

10. The apparatus for configuring a blood circuit component according to claim 9, further comprising:

an existing standard database in which a plurality of the existing standards are stored, the existing standard being the combination of the unit components constituting an existing specific blood circuit,

wherein the retrieved combination candidate display portion retrieves the existing standard database together with the blood circuit system database.

11. An apparatus for configuring a blood circuit for medical application comprising an apparatus according to claim 7 and an apparatus according to claim 9, and further comprising an operation selection portion for selecting any one of operations of either an operation by the unit section assignment portion or an operation by the set conditions input portion.

12. The method of configuring a blood circuit for medical application according to claim 1, wherein the blood circuit for medical application is a blood circuit for dialysis, and the blood circuit is divided into an artery side circuit and a vein side circuit and further each of the artery side circuit and the vein side circuit is divided into a plurality of unit sections.